should return to play in a contact league after injury.¹⁵ Indeed, as Stephen Anderson reminds us, these principles should apply not only to ice hockey but to all sports.

Ultimately, a multifaceted approach that incorporates the elimination of bodychecking, enforcement of rules, engineering advances in materials and education holds the greatest promise for making hockey a safer game.

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References

- McFaull S. Contact injuries in minor hockey: a review of the CHIRPP database for the 1998/1999 hockey season. CHIRPP News 2001;(19):1-9. Available: www.hc-sc.gc.ca/pphb-dgspsp/publicat/chirpp-schirpt/19jan01/index.html (accessed 2003 Oct 27).
- American Psychiatric Association. Psychiatric effects of media violence. Arlington (VA): The Association; [no date]. Available: www.psych.org/public _info/media_violence.cfm (accessed 2003 Oct 13).
- Wennberg RA, Tator CH. National Hockey League reported concussions, 1986-87 to 2001-02. Can J Neurol Sci 2003;30(3):206-9.
- Kaut KP, DePompei R, Kerr J, Congeni J. Reports of head injury and symptom knowledge among college athletes: implications for assessment and educational intervention. Clin J Sport Med 2003;13(4):213-21.
- NIH Consensus Development Panel on Rehabilitation of Persons with Traumatic Brain Injury. Consensus conference. Rehabilitation of persons with traumatic brain injury. *JAMA* 1999;282(10):974-83.
- Honey CR. Brain injury in ice hockey. Clin J Sport Med 1998;8(1):43-6.
- Brust JD, Leonard BJ, Pheley A, Roberts WO. Children's ice hockey injuries. Am J Dis Child 1992;146:741-7.
- Goodman D, Gaetz M, Meichenbaum D. Concussions in hockey: There is cause for concern. Med Sci Sports Exerc 2001;33:2004-9.
- Roberts W, Brust JD, Leonard B, Hebert BJ. Fair-play rules and injury education in ice hockey. Arch Pediatr Adolesc Med 1996;150:140-5.
- Pinto M, Kuhn JE, Greenfield ML, Hawkins RJ. Prospective analysis of ice hockey injuries at the Junior A level over the course of one season. Clin 7 Sport Med 1999;9(2):70-4.
- 11. Regnier G, Boileau R, Marcotte G, Desharnais R, Larouche R, Bernard D, et al. Effects of body-checking in the Pee Wee (12 and 13-years-old) division in the Province of Quebec. In: Castaldi CR, Hoerner EF, editors. Safety in ice bockey. Philadelphia: American Society for Testing Materials; 1989. p. 84-103.
- Biasca N, Wirth S, Tegner Y. The avoidability of head and neck injuries in ice hockey: an historical review. *Br J Sports Med* 2002;36:410-27.
- Tator CH, Carson JD, Cushman R. Hockey injuries of the spine in Canada, 1966–1996. CMAJ 2000;162(6):787-8.

- Collins MW, Lovell MR, Iverson GL, Cantu RC, Maroon JC, Field M. Cumulative effects of concussion in high school athletes. *Neurosurgery* 2002;51:1175-9.
- Marchie A, Cusimano MD. Bodychecking and concussions in ice hockey: Should our youth pay the price? [editorial]. CMAJ 2003;169(2):124-8.

Prehospital intubation and SARS

Richard Verbeek and associates¹ conclude that "paramedics should not intubate patients with SARS-like symptoms in the prehospital setting," presumably because of the risk of contracting severe acute respiratory syndrome (SARS). I disagree with this sweeping prohibition.

First, the only evidence provided that such intubations pose a risk is a single case report,2 which did not even involve paramedics. That intubation occurred in the intensive care unit of a teaching hospital and was anything but typical. The procedure was prolonged, and both bilevel positive airway pressure and high-frequency oscillatory ventilation were used, procedures likely to create a viral aerosol and considered unacceptably dangerous by physicians experienced in the treatment of SARS (H. Dwosh and H. Wong, Department of Medicine, York Central Hospital, Richmond Hill, Ont.: personal communication, 2003). In contrast, many straightforward intubations of patients with SARS were performed without incident during the Toronto outbreak.

Second, the authors make no attempt to quantify the risk to paramedics. Instead, their recommendation is based on the conclusion that it is difficult to follow the procedures required by the provincial government's directive. However, this directive is not evidence-based. A more reasonable conclusion would be that the Ontario government directive is impractical and should be reconsidered.

Third, the authors fail to place SARS-like illness into an epidemiological context. Obviously, SARS is a meaningful risk only in communities that are experiencing a SARS outbreak. At the moment, this does not apply

anywhere on the planet. Even in a community that is experiencing a SARS outbreak, the probability that a prehospital patient who has "SARS-like symptoms" and who requires prehospital intubation actually has the disease is small. If it can be ascertained that the patient is not a hospital worker or a recently discharged (within 10 days) inpatient, the probability becomes very small indeed.

There is no reason to believe that a straightforward intubation of a low-risk patient poses an unacceptable risk to paramedics using reasonable and practical precautions. This risk analysis applies to the great majority of prehospital intubations during a SARS outbreak and, at present, it applies to all prehospital intubations throughout the world.

The sweeping recommendation of Verbeek and associates' will compromise patient care while offering no benefit to paramedics. This is just the latest example of a self-inflicted wound from our misguided response to SARS.⁺

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References

- Verbeek PR, Schwartz B, Burgess RJ. Should paramedics intubate patients with SARS-like symptoms? [editorial]. CMA7 2003;169(4):299-300.
- Cluster of severe acute respiratory syndrome cases among protected health care workers Toronto, Canada, April 2003. MMWR Morb Mortal Wkly Rep 2003;52:432-6.
- Directive 03-11. Directive to all Ontario acute care bospitals for high risk procedures. Toronto: Ontario Ministry of Health and Long-Term Care; 2003 June 16.
- Schabas R. SARS: prudence, not panic [editorial]. CMAJ 2003;168(11):1432-4.

Infortunately, I cannot agree with Richard Verbeek and associates¹ that paramedics should not intubate patients with SARS-like symptoms in the prehospital setting. If we applied their logic to certain other clinical scenarios, paramedics would never, for example, insert an intravenous line for fear of contracting HIV infection. A reliable history of HIV risk factors is difficult to obtain in the field, and the uncontrolled circumstances in which paramedics